REMARKS/ARGUMENTS

This Amendment is in response to the Office Action mailed February 13, 2009. Claims 1-30 and 32-47 are pending in the present application and have been rejected. Claims 31 and 48-70 were previously canceled.

Accordingly, claims 1-30 and 32-47 remain pending in the present application after entry of this submission. Reconsideration of the rejected claims is respectfully requested.

Examiner Interview

Counsel for Assignee would like to thank Examiner Patel for the courtesies extended during the telephonic interview conducted on June 15, 2009. During the interview, counsel for assignee and the Examiner discussed the rejection of the pending claims under 35 USC § 103(a). Counsel for assignee explained why neither the Maher reference (U.S. Patent No. 6,654,373) (hereinafter "Maher") nor the Scholten reference (U.S. Patent No. 7,126,956) (hereinafter "Scholten") disclose the claimed limitations. During the interview, counsel for assignee explained that the references do not teach a second data link having a second bandwidth smaller than the first bandwidth, where the second data link is adapted to output the aggregated data stream from the aggregation module to a second processor, as recited in claims 20-30 and 47. Counsel for assignee also explained that the references do not teach a packet descriptor and its use for aggregating data streams, as recited in claims 32-45. Finally, counsel for assignee and the Examiner discussed features of the aggregation module and the analyzer, as recited in claims 1-19 and 46, respectively. No agreement was reached. The interview ended with counsel for assignee stating that he would prepare and submit a response to the Office Action incorporating the discussion with the Examiner, as appropriate.

Claim Rejection under 35 USC 103

In the Office Action, claims 1-15, 18, 20-44, 46 and 47 are rejected under 35 U.S.C. §103(a) as being unpatentable over Maher in view of Scholten. Claim 16 is rejected under 35 U.S.C. §103(a) as being unpatentable over Maher in view of Scholten as applied to claim 15 above, and further in view of Manaka et al (U.S. Patent No. 6,421,352) (hereinafter

"Manaka"). Claim 17 is rejected under 35 U.S.C. §103(a) as being unpatentable over Maher in view of Scholten and Abbas et al (U.S. Patent No. 6,810,046) (hereinafter "Abbas"). Claims 19 and 45 are rejected under 35 U.S.C. §103(a) as being unpatentable over Maher in view of Scholten as applied to claims 18, 44 and 62 above, and further in view of Mackiewich et al (U.S. Patent No. 7,212,536) (hereinafter "Mackiewich").

Claims 1-19

In the previous response to Office Action dated December 3, 2008, the Applicant amended independent claim 1 and explained why the cited references do not disclose an aggregation module, as recited in independent claim 1. In the last Office Action, the Examiner maintained his rejection of the claims. During the interview conducted on June 15, 2009, Counsel for assignee again explained to the Examiner why the references do not teach an "aggregation module adapted to analyze and combine the plurality of input data streams into one aggregated data stream in response to the priority factors," as recited in independent claim 1. Although, the Applicant respectfully disagrees with the Examiner's reasons for rejecting claim 1, as articulated in the previous response to Office Action and incorporated herein by reference, in an effort to expedite prosecution, the Applicant has amended claim 1 to further clarify and further distinguish claim 1 over the cited prior art.

Specifically, claim 1 has been amended to recite "an aggregation module coupled to said plurality of ingress data ports and configured to receive the plurality of input data streams from the first processors using the plurality of ingress data ports, wherein an input data stream from a first processor is received via the ingress data port coupled to the first processor, said aggregation module adapted to analyze and combine the plurality of input data streams into one aggregated data stream in response to the priority factors and to generate a packet descriptor comprising a reference to a memory location of its analyzed data packet; a memory coupled to said aggregation module, said memory adapted to store analyzed data packets; said memory comprising a plurality of priority queues each provided for a corresponding priority class, adapted to store the packet descriptor of each of the analyzed data packets classified to the corresponding priority class, the packet descriptor containing a reference to the memory location

of its analyzed data packet in said memory." The Applicant believes that neither Maher nor Scholten teach or suggest an analyzer adapted to generate a packet descriptor comprising a reference to a memory location of its analyzed data packet. Further, the Applicant believes that neither Maher nor Scholten teach or suggest a "memory comprising a plurality of priority queues each provided for a corresponding priority class, adapted to store the packet descriptor of each of the analyzed data packets classified to the corresponding priority class, the packet descriptor containing a reference to the memory location of its analyzed data packet in said memory," as recited in claim 1. See remarks regarding claim 32 below for a discussion why Maher and Scholten do not disclose these limitations. This amendment is fully supported in the specification. Support for the claim amendments can be found throughout the originally filed specification and specifically in paragraph [0019] and claim 7 of the originally filed application.

In light of the above, the Applicant submits that claim 1 is patentable over a combination of Maher and Scholten. The Applicant further submits that dependent claims 2-19, which depend either directly or indirectly from claim 1, are also not rendered obvious by a combination of Maher and Scholten for at least a similar rationale as discussed above for claim 1. The Applicant submits that the dependent claims are also patentable for additional reasons.

Claims 20-30, 47

In the previous response to Office Action dated December 3, 2008, the Applicant amended independent claim 20 and explained why the cited references fail to disclose the limitations recited in both independent claims 20 and 47. In the last Office Action, the Examiner maintained his rejection of the claims. During the interview conducted on June 15, 2009, counsel for assignee explained to the Examiner why the references did not teach the claimed invention. As explained to the Examiner, the references do not teach a second data link having a second bandwidth smaller than the first bandwidth, where the second data link is adapted to output the aggregated data stream from the aggregation module to a second processor, as recited in claims 20-30 and 47. During the interview, the Examiner acknowledged that the references do not appear to teach these limitations. For this reason alone the Applicant submits that claim 20 is patentably distinct over the cited references.

Scholten address the problem of communication link bandwidths being too high for the requirements of a single user, which results in waste because single users often purchase or have allocated to too much bandwidth. Scholten solves this problem by aggregating multiple users to use a single unit of bandwidth. In Scholten, the output bandwidth is greater than the input bandwidth, which is the opposite of the claimed invention where a second data link having a second bandwidth is smaller than the first bandwidth and where the second data link is adapted to output the aggregated data stream from the aggregation module to a second processor. For example, col. 3 lines 47-55 of Scholten describe that an aggregation module 102 (depicted in Fig. 1 of Scholten) receives ***lower*** bandwidth data packets from the plurality of input-output ports and outputs a ***higher*** bandwidth data signal for transmission via the high capacity network 104. The Applicant however submits that this is completely different (and opposite) from what is claimed in claim 20. As recited in claim 20, the bandwidth of the second data link used to output the aggregated data stream from the aggregation module to the second processor is smaller than the first bandwidth of the first data link over which the input data stream is received by the ingress port from the first processor -- in this manner data streams are aggregated from a higher bandwidth data link to a lower bandwidth data link. In other words, in claim 20, the bandwidth of the link used to output data from the aggregate module is smaller than the bandwidth of the link over which data is received by the aggregate module. On the contrary, in Scholten col. 3 lines 47-55, module 102 receives ***lower*** bandwidth data packets from the plurality of input-output ports and outputs a ***higher*** bandwidth data signal. The invention recited in claim 20 aggregates data streams from a higher bandwidth data link to a lower bandwidth data link – whereas in Scholten, the data packets are aggregated from lower bandwidth data packets received from the plurality of input-output ports into a higher bandwidth data signal.

The Applicant further submits that other portions of Maher and Scholten also fail to disclose this limitation for the reasons provided in the previous response to Office Action and incorporated herein by reference. The Applicant submits that independent claim 47 includes similar language is therefore patentable for the similar reasons. The Applicant further submits that dependent claims 21-30, which depend either directly or indirectly from claim 20, are also not rendered obvious by a combination of Maher and Scholten for at least a similar rationale

discussed above for claim 20. Applicant submits that the dependent claims are patentable for additional reasons.

Claims 32-45

In the previous response to Office Action dated December 3, 2008, the Applicant explained why the cited references fail to disclose the limitations recited in independent claim 32. In the last Office Action, the Examiner maintained his rejection of claim 32 using essentially the same rationale as used in the previous Office Action. During the interview conducted on June 15, 2009, counsel for assignee explained to the Examiner why the references did not teach the claimed invention. Specifically, during the interview, counsel for assignee explained that the references do not teach "generating a packet descriptor for the analyzed ingress data packet, the packet descriptor containing a reference to a memory location of its analyzed data packet stored in the memory; placing the packet descriptor in a priority queue corresponding to the priority class of the data packet," as recited in independent claim 32. During the interview, the Examiner acknowledged that the references do not appear to teach "placing the packet descriptor in a priority queue corresponding to the priority class of the data packet." For this reason alone the Applicant submits that claim 32 is patentably distinct over the cited references.

In addition, the Applicant maintains his belief that the cited references do not disclose a "packet descriptor" as recited in the claims. In the Office Action, the Examiner appears to have interpreted Maher's "context" to be a "packet descriptor." As best understood, a *context*, as used in Maher, is a 64 byte block of a packet belonging to a particular traffic flow. Since the context is a piece of a packet, unlike the packet descriptor recited in claim 32, it is not generated from analyzing an ingress data packet.

Further, since the context described in Maher is a part of the packet itself, it does not contain a reference to a memory location of the analyzed packet stored in the memory, as recited in claim 32.

Further, as recited in claim 32, the arbitrating and selecting is done using the packet descriptors. There appears to be no such teaching in Maher. In Maher, the processing seems to be done using the packets or portions of the packet. In the previous final Office Action

and previous Advisory Action, the Examiner argued that the context represents the particular flow of packets and their memory location in the queue engine 302 and that this is generating the packet descriptor for packets in memory. The Examiner used column 9 lines 63-66 of Maher for support. As previously argued, the Applicant submits that col. 9 lines 63-66 of Maher do not teach that the context is used to load packets in and out of a buffer as asserted by the Advisory Action. On the contrary, this section of Maher describes that the context is loaded into one of the buffers in context buffers 362 until it is retrieved by scheduler 364. Accordingly, in Maher as described, the context, which is a part of the packet, is itself loaded into the buffer – the context is not used to load a separate packet. Applicant submits even this section does not teach anything about a packet descriptor, as recited in claim 32, that contains a reference to a memory location of the analyzed packet stored in the memory Applicant subsequently submits that the processing done using a packet descriptor, as recited in claim 32, is also not taught by Maher.

In light of the above and other reasons articulated in the previous response to Office Action and incorporated herein by reference, the Applicant submits that the concepts of a packet descriptor and its use for aggregating data streams, as recited in claim 32, are not taught or suggested by Maher. The Applicant further submits that the dependent claims 33-45 which depend either directly or indirectly from claim 32 are also not rendered obvious by a combination of Maher and Scholten for at least a similar rationale discussed above for claim 32. Applicant submits that the dependent claims are patentable for additional reasons.

Claim 46

In the previous response to Office Action dated December 3, 2008, the Applicant explained why the cited references fail to disclose the limitations recited in independent claim 46. In the last Office Action, the Examiner maintained his rejection of claim 46 using essentially the same rationale as used in the previous Office Action. During the interview conducted on June 15, 2009, counsel for assignee explained to the Examiner why the references did not teach all of the limitations recited in claim 46. Because of the reasons articulated in the previous response to Office Action and incorporated herein by reference, the Applicant respectfully disagrees with the Examiner's reasons for rejecting claim 46. However, in an effort to expedite

prosecution, the Applicant has amended claim 46 to clarify the analyzing limitation and to further distinguish the claim over the cited prior art.

Specifically, claim 46 has been amended to recite "analyzing the input data stream received from the first processor using the analyzer to classify each of the ingress data packets into one of a plurality of priority classes based on the priority factors included in the ingress data packet." The Applicant believes that neither Maher nor Scholten teach or suggest that the analyzer classifies each of the ingress data packets into priority classes based on the priority factors included in the ingress data packet. This amendment is fully supported in the specification. Support for the claim amendments can be found throughout the originally filed specification and specifically in paragraph [0028] of the originally filed application.

Amendments to the Claims

Unless otherwise specified, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the Specification as filed and do not add new matter.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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